The following Listing of the Claims will replace all prior versions and all prior listings of the claims in the present application:

Listing of The Claims:

1-22. (Canceled)

23. (New) A peptide analogue of GIP(1-42) comprising at least 15 amino acid residues from the N-terminal end of GIP (1-42), the analogue containing exactly one amino acid substitution or modification at positions 1, 2 and 3, with the proviso that the modification is not glycation of the tyrosine residue at position 1.

24. (New) A peptide analogue as claimed in claim 23, wherein the amino acid modification is selected from the group consisting of:
(a) N-terminal alkylation;
(b) N-terminal acetylation;
(c) N-terminal acylation;
(d) The addition of an N-terminal isopropyl group; and
(e) The addition of an N-terminal pyroglutamic acid.

25. (New) The peptide analogue as claimed in claim 23, wherein the amino acid substitution is selected from the group consisting of:
(a) D-amino acid substitution in position 1;
(b) D-amino acid substitution in position 2; and
(c) D-amino acid substitution in position 3.

26. (New) A peptide analogue as claimed in claim 23, where the amino acid in the 2 or 3 position is substituted by lysine, serine, 4-amino butyric acid (Abu), amino isobutyric acid (Aib), sarcosine or proline.

27. (New) A peptide analogue as claimed in claims 23-26, further comprising an additional modification by fatty acid addition at an epsilon amino group of at least one lysine residue.

28. (New); The peptide analogue as claimed in claim 27, where the lysine residue is chosen from the group consisting of Lys^{16}, Lys^{30}, Lys^{32}, Lys^{33} and Lys^{37}.

29. (New) A pharmaceutical composition comprising the peptide analogue of claim 23.

30. (New) A pharmaceutical composition of claim 29, further comprising a pharmaceutically acceptable excipient.

31. (New) A pharmaceutical composition comprising the peptide analogue of claim 24.

32. (New) A pharmaceutical composition of claim 31, further comprising a pharmaceutically acceptable excipient.

33. (New) A pharmaceutical composition comprising the peptide analogue of claim 25.

34. (New) A pharmaceutical composition of claim 33, further comprising a pharmaceutically acceptable excipient.

35. (New) A pharmaceutical composition comprising the peptide analogue of claim 26.

36. (New) A pharmaceutical composition of claim 35, further comprising a pharmaceutically acceptable excipient.

37. (New) A pharmaceutical composition comprising the peptide analogue of claim 27.

38. (New) A pharmaceutical composition of claim 37, further comprising a pharmaceutically acceptable excipient.

39. (New) A method for treating diabetes, comprising administering to an individual in need of such treatment an effective amount of the peptide analogue of claim 23.

40. (New) A method for treating diabetes, comprising administering to an individual in need of such treatment an effective amount of the peptide analogue of claim 24.

41. (New) A method for treating diabetes, comprising administering to an individual in need of such treatment an effective amount of the peptide analogue of claim 25.

42. (New) A method for treating diabetes, comprising administering to an individual in need of such treatment an effective amount of the peptide analogue of claim 26.

43. (New) A method for treating diabetes, comprising administering to an individual in need of such treatment an effective amount of the peptide analogue of claim 27.

44. (New) A method of N-terminally modifying GIP or analogues thereof, the method comprising the steps of (a) synthesizing a GIP peptide from the C-terminal to the penultimate N-terminal amino acid, (b) providing tyrosine as a F-moc protected Tyr(tBu)-Wang resin, deprotecting the N-terminus of the tyrosine and reacting with modifying agent, allowing the reaction to proceed to completion, cleaving the modified tyrosine from the Wang resin to produce a free modified tyrosine and (c) adding the free modified tyrosine to the N-terminus of the synthesized peptide of (a).

45. (New) A method as claimed in claim 44 wherein the modifying agent is chosen from the group consisting of: glucose, acetic anhydride and pyroglutamic acid.

46. (New) A peptide analogue of GIP(1-42) comprising at least 15 amino acid residues from the N-terminal end of GIP (1-42), the analogue containing one or more amino acid substitutions or modifications at positions 1, 2 and 3, with the proviso that the modification is not glycation of the tyrosine residue at position 1, and with the further proviso that if the amino acid at position 1 is modified or substituted it is modified or substituted by:

(a) N-terminal alkylation;

(b) N-terminal acetylation;

(c) N-terminal acylation;

(d) The addition of an N-terminal isopropyl group;

(e) The addition of an N-terminal pyroglutamic acid;

(f) D-amino acid substitution in position 1;

(g) D-amino acid substitution in position 2; and

(h) D-amino acid substitution in position 3.

47. (New) A peptide analogue as claimed in claim 46, where the amino acid in the 2 or 3 position is substituted by lysine, serine, 4-amino butyric acid (Abu), amino isobutyric acid (Aib), sarcosine or proline.

48. (New) A peptide analogue as claimed in claims 46, further comprising an additional modification by fatty acid addition at an epsilon amino group of at least one lysine residue.

49. (New) A pharmaceutical composition comprising the peptide analogue of claim 46.

50. (New) A method for treating diabetes, comprising administering to an individual in need of such treatment an effective amount of the peptide analogue of claim 46.